

## SPORTS



### PEACE RACE WINDING UP

The 35th Peace Race, which starts May 9, has passed Czechoslovakia and Poland, will roll to a close on May 23 in Berlin. After nine out of the total 12 stages last year, U.S. Shukhov Zagreb now still leads the overall standings, with the GDR holding on to their lead right from the start.

# THE WORLD

## SORSA FOR NUCLEAR-FREE ZONE IN EUROPE

Holmaki, The Finnish Prime Minister, Kallevi Sorsa, has said that the Nordic European countries ought to continue to study the possibility of Northern Europe being declared nuclear-free area.

Speaking in an interview to the Swedish News Agency, Sorsa said that the most suitable venue for discussion of this subject would be the regular meeting between the foreign ministers of the countries in the region. We believe, he said, that the initiative to create a nuclear-free zone should come from the northern countries themselves, who, in the course of open discussion, may reach mutual agreement on the issue.

## NEW BASES IN THE NEGEV DESERT

In Aviv, it has been announced here that two "ultra-modern" air bases have been set up in the southern part of the Negev Desert. They have been built with American help and are to compensate for the loss by Israel of two of its bases in the Sinai Peninsula. Washington has granted a \$600-million-dollar loan to Israel for this purpose.

As for the two former Israeli Air Force bases in Sinai, they have been taken over by the American rapid deployment force which has replaced the Israeli troops of occupation.

## PROSPECTS FOR AMERICAN MILITARY POLICY

New York. Military objectives for the United States in those areas where the Americans will most probably have to resort to armed force are outlined in a document drawn up jointly by

the Council for Defence Resources and by the Joint Chiefs of Staff. It covers the period up to 1988, as well as giving an outline of tasks to the mid-90s. The document, which sets



The stairs are rather steep for him, so we've relieved him of some of his load... Drawing by Yuri Ivonov

**VIEWPOINT**

## DEVELOPING COUNTRIES IN THE FIGHT FOR ECONOMIC INDEPENDENCE

There are many methods of advancing the economies of young independent states. And, what is more, they are highly contradictory — ranging from the memorable recommendations made by the American president at last year's meeting in Cancun advising complete reliance on the "free" market and foreign capital investment, to the concept of "collective reliance on one's own forces", put forward by the developing countries themselves.

The search for an optimal strategy to attain economic progress continues at a growing pace. A whole series of international forums on this theme has just ended; a Delhi meeting between representatives of 47 developing nations; the 8th conference of the UN Economic Commission for Africa (ECA) in Tripoli; the 2nd conference of the Afro-Asian People's Solidarity Organization (AAPSO); "The Strategy of Development and Transnational Corporations" in Addis Ababa; in addition to various events within the framework of regional economic organizations.

What have these meetings shown? Of course, they could not provide a panacea for all troubles, but on balance a formula common to all developing nations for the concrete directions to be taken by the struggle with economic backwardness took fairly firm shape in the course of the discussions. Apart from the need for all-out mobilization of the

internal resources of each country for the goals of development, at least four basic objectives became apparent: economic decolonization, broad mutual cooperation, the struggle for a new economic order on a fair basis, and active participation in the general human struggle for disarmament and a stronger peace as the main precondition of any progress.

Statistics show that at present the economic activities of most developing nations do not so much benefit the latter countries, they enrich the industrialized capitalist states. It was stressed at the AAPSO conference in Addis Ababa that the big international monopolies, or transnational corporations (TNC), alone take between \$0 and 100 billion dollars in profit out of the third world countries annually. Payment by the latter on Western credits is nearly equal to the total of newly obtained loans. In other words, the real inflow of investment in developing countries is reduced to practically zero.

Today the TNCs control 70 per cent of Africa's raw material exports, which they obtain, according to UN figures, at a maximum one-third of the price they fetch elsewhere. The same situation exists in other developing regions. A situation arises in which most mineral resources become the preserve of the state sector in industry and agriculture; the resumption of unilateral orientation, as far as former monopolies, and other foreign partners, could ensure real autonomy and shape the military-political circle behind

the links, the socialist nations included.

Apparently deserving of special attention in this connection is the fact that for many developing nations cooperation with socialist states has become a critical factor in strengthening their economic independence based on the principles of equality, justice and mutual gain.

It seems that no one today in the developing nations questions the need to strengthen in every way economic links within the framework of relations "South-South". But practical shifts in this direction, however, are as yet very insignificant. Let us take, for instance, the mutual trade of developing nations, for which there is an immense need, for, to this day, exchange between them normally conducted through intermediaries, and primarily through the same TNCs. But it is growing even slower than the foreign trade of those countries taken as a whole.

No less acute is the question of the joint creation of branches of production, i.e., the development of mineral deposits, metallurgy, oil refining, etc., vital factors in strengthening economics independence. There are already encouraging advances in this area. Recently, for instance, nine independent states in the south of Africa adopted a concrete programme of action with the aim of ending their foreign dependence on the use of power resources. Our oil, gas, coal and hydrosources should be used to meet our own needs, and not in the interests of racial South Africa by the international forces of reaction, we will win our goal—freedom for people and the creation of a democratic society, he stressed.

Experience teaches us that the African peoples must unite in their struggle, put an end to the past and become own masters. Despite the support given to racial South Africa by the international forces of reaction, we will win our goal—freedom for people and the creation of a democratic society, he stressed.

There are more and more examples of the economic integration of developing countries, and of their growing mutual links. At present, however, these are but separate landmarks on the road to such cooperation which, together with other factors, could ensure real autonomy and shape the military-political circle behind



Afred Nzo: we stand united in our struggle to liberate Africa

(Continued from page 1)

PLASTIC FROM PLANTS

British scientists have discovered how to make plastic out of plants. Leaves and the stalks of maize and sugar beet are used as the basic raw material. The new type of plastic is stored in liquid form and later made into bricks of temperatures of between 60° and 70°C. Economists estimate that plastic made out of plants will be much cheaper than that made from oil.

**POPULATION DOUBLED**

Washington. According to a private research organization, there are 4,600 million people living on this earth, twice the amount that there were in 1947. According to forecasts, there should be about 10,000 million people on our planet by the year 2050.

**YOUR TEMPERATURE IN TWO SECONDS**

A factory producing medical instruments in the city of Poz-

nan in Poland has put out an original thermometer which only takes two seconds to measure a patient's temperature at a distance. The temperature appears on a special digital read-out.

**METEOR TELLS ITS STORY**

A short while ago, Arizona University in the United States, analyzed a meteor which fell in the south of Australia. British newspaper report, the scientist, who made the analysis, discovered some amino-acids having similar characteristics to those found on the Earth. This gives ground for the belief that somewhere in outer space there exist conditions favourable for the formation of these molecules.

## OF INTEREST

### An unusual operation

A Philippine surgeon managed to save the life of a dying man 100 kilometres away from the operating table. But Dr de Jesus, from a small hospital in the South Camarines province (the Luzon Island), did not rely on supernatural forces for this.

According to Manila "Bulletin Today", the patient, who had been injured in a car accident, was taken to hospital unconscious after losing a lot of blood. Cardiac resuscitation was urgently needed, but the only neurosurgeon was a long way away. The patient only had a few minutes to live. The local doctor got in touch with the surgeon by radio, making use of a local home station.

**Buses for cyclists**

During the summer, two bus routes linking Stockholm with its suburb of Bromma and Värmö, will carry passengers along with their bicycles. There are brackets at the back of each bus to hold two bicycles. A "bicycle" fare will be three times the ordinary rate.

The world we live in.

From "Al-Sayyid"

# THE WORLD

## Appeal by World Council of Churches

Geava. The World Council of Churches has urged churches, religious movements and organizations in all countries to step up their drive against the threat of nuclear war. The appeal stresses that the time has come for the Church to issue an emphatic pronouncement to the effect that the production, deployment and use of nuclear weapons is a crime against humanity and should be condemned both from the standpoint of morality and religion.

The appeal urges that all faiths should join forces and call for cooperation with non-religious organizations promoting peace and disarmament. It is emphasized in particular that an end to the arms race, to nuclear disarmament and denuclearization in general would have a highly beneficial impact on the solution of problems now facing the developing countries of Asia, Africa and Latin America.

## PEACE TORCH ON THE ROADS OF EUROPE

Nimes. This ancient French city has become another stage in the international marathon for disarmament, which began in Greece. The peace torch which the marchers have been carrying all the way from Olympia where it was lit, has travelled along the roads of Greece, Yugoslavia and Italy. It will proceed to Barcelona, Lisbon, Montreal and New York where it is due to arrive in time for the start of the UN General Assembly's second session on disarmament.

Another peace torch is to go via Sofia, Bucharest, Budapest, Vienna and Prague to Bonn where it will burn during the mass anti-war demonstration on June 10 which is timed to coincide with the American president's visit to West Germany and a meeting of the NATO Council.

The march, which began in three major city parks, started with an unusual demonstration to the sounds of wailing sirens, a roaring B-52 bomber, and a nuclear explosion inside loudspeakers, test of thousands of people tell to the ground when they lay motionless in the space of a minute. This was intended as a reminder of the tragedy of Hiroshima and Nagasaki and as a protest against the policies of those who are again pushing the world towards a nuclear disaster. The demonstrators were later addressed by the survivors of the 1945 nuclear attack.

The participants of the march unanimously approved the Tokyo Appeal and a resolution in which the Japanese government is condemned for the support it is giving the United States in the conduct of a dangerous policy. The resolution also opposes the deployment of cruise missiles and of neutron bombs in Japan and the adjacent areas in Asia.

Ahmed Dervish, a millionaire subcontractor from Alexandria in Egypt, collects his own court fees. On more than forty occasions he has been sentenced to prison for illegal possession of weapons.

**PEOPLE**

Michael Momot, who was arrested three months ago during the Pope's arrival at the Nigerian airport of Kaduna, has been sentenced to six months in jail or to a 450-dollar fine for illegal possession of weapons.

**Science and technology**

British scientists have discovered how to make plastic out of plants. Leaves and the stalks of maize and sugar beet are used as the basic raw material. The new type of plastic is stored in liquid form and later made into bricks of temperatures of between 60° and 70°C. Economists estimate that plastic made out of plants will be much cheaper than that made from oil.

**PLASTIC FROM PLANTS**

British scientists have discovered how to make plastic out of plants. Leaves and the stalks of maize and sugar beet are used as the basic raw material. The new type of plastic is stored in liquid form and later made into bricks of temperatures of between 60° and 70°C. Economists estimate that plastic made out of plants will be much cheaper than that made from oil.

**POPULATION DOUBLED**

Washington. According to a private research organization, there are 4,600 million people living on this earth, twice the amount that there were in 1947. According to forecasts, there should be about 10,000 million people on our planet by the year 2050.

**YOUR TEMPERATURE IN TWO SECONDS**

A factory producing medical instruments in the city of Poz-

nan in Poland has put out an original thermometer which only takes two seconds to measure a patient's temperature at a distance. The temperature appears on a special digital read-out.

**METEOR TELLS ITS STORY**

A short while ago, Arizona University in the United States, analyzed a meteor which fell in the south of Australia. British newspaper report, the scientist, who made the analysis, discovered some amino-acids having similar characteristics to those found on the Earth. This gives ground for the belief that somewhere in outer space there exist conditions favourable for the formation of these molecules.

The world we live in.

From "Al-Sayyid"

## FROM the SOVIET PRESS

### REMISSION OF SINS TO THE AGGRESSOR

Commanding on the meeting of the Political Committee of the European Council in Jerusalem, Yury Gulyakov writes in PRAVDA as follows:

"It is difficult to understand why the representatives of West European countries affiliated to that organization, including some REC members, should have chosen Jerusalem as a venue for their meeting. The city has nothing whatsoever to do with European culture.

Besides, the Israeli Knesset has declared Jerusalem as the only and indivisible capital of Israel, thus annexing the Eastern, Arab part of the city in defiance of the UN decision of July 30, 1967, on the special status of that city. Now the Tel Aviv leaders are devising all manner of stratagems in order to get their illegal action recognized in one way or another.

In such a situation, the actions of the European Council constitute at least indirect approval of the policies of the Israeli government regarding the occupied Arab lands, a policy of illegal territorial acquisitions. Instead of nipping the expansionist pangs in the bud, forgiveness is being passed out to the aggressor in the form of the remission of his sins."

### SECRET SCENARIO FOR CHUNG DOO HWAN

Washington's assertions that the presence of American troops in South Korea is aimed at "defending" it from the mythical "threat from the north" are totally groundless, writes the SELSKAYA ZHIZN newspaper in connection with the second anniversary of the ruthless massacre of the participants in a popular uprising in the South Korean city of Kwangju.

The masses, who arose in May 1980 against the tyranny of the pro-American garrison regime, demanded democratization of life after the collapse of the 18-year-old rule of the "bloody dictator" Park Chung Hee. However, writes commentator Igo Zua, Washington strategists did their utmost to prevent this, for the south of the Korean Peninsula is mentioned in that aggressive plan as an important staging area for armed provocations and interference in the internal affairs of Asian and Pacific countries.

According to press reports, the South Korean leadership, closely linked with the United States, acted in accordance with a secret American scenario and, having drowned in blood the popular uprising in Kwangju, handed over power into the hands of Chung Doo Hwan, the commentary says.

### UNILATERAL ADVANTAGES IN DISARMAMENT

The recent of the United States to the Soviet Union's proposal for resuming talks on limiting and reducing strategic armaments announced by the US president in his May 9 speech is regarded in Moscow as a step in the right direction, the newspaper SOVETSKAYA ROSSIYA writes today. However, one cannot but make one substantive reservation as regards the essence of the US position, the paper goes on. The US stand is absolutely unilateral in nature, because the United States would like to exclude from the talks the types of strategic armaments it is now most intensively developing.

The trouble is, the paper continues, that the White House is guided by the principle of unilateral advantage, not the principle of equal security. Ronald Reagan's "zero option" proposed on November 18, 1981 is nothing but an invitation for the Soviet Union to disarm unilaterally. The United States would like to eliminate the Soviet Union's advantage in certain armaments, while leaving its own intact. Does Washington, one may ask, hope that Russians, Americans and Europeans will fail to figure out what and will be misled by pseudo-radical and pseudo-peaceful statements?

### ATTEMPTS TO TURN BACK THE WHEEL OF HISTORY ARE DOOMED

During a visit to China by Siddhi Savatella, Foreign Minister of Thailand, a new attempt was made in Peking to rearm such political camps as Pol Pot, Yeng Sary and their followers, writes SOTSIALISTICHESKAYA INDUSTRIYA.

As was reported by "Renmin Ribao" Zhao Zhongyuan, Premier of the State Council of the People's Republic of China, realized during his talks with the Thai guest, that China intends to give assistance to the ASEAN countries in supporting the alliance of the three parties, agrees in Kampuchea. So Peking decided to try once again to persuade the ASEAN countries, Thailand in the first place, to continue hopeless efforts to bring together Khmer reactionaries within a certain united front, the newspaper points out.

### Friendship

#### SOCIETY SET UP

Sana. A Yemeni Arab Republic-USSR Friendship Society has been set up on the decision of the government of the Yemeni Arab Republic.

An official announcement published here stresses that the decision stems from the desire for the continued development of relations of friendship and cooperation between the two countries and that the public at large be involved in the strengthening of such relations. Ahmed Muhammed, Minister of the Yemeni Arab Republic, and Secretary General of the Supreme Council for the Affairs of Culture and Sport, is chairman of the Friendship Society.

## HOME NEWS

### Round the Soviet Union

THEORETICAL PROBLEMS OF MODERN PSYCHIATRY HAVE BEEN DISCUSSED AT AN INTERNATIONAL SYMPOSIUM HELD IN MOSCOW, SPONSORED BY THE USSR STATE COMMITTEE ON SCIENCE AND TECHNOLOGY, THE USSR HEALTH MINISTRY, THE ALL-UNION SCIENTIFIC CENTER OF PSYCHIATRY AT THE USSR ACADEMY OF MEDICAL SCIENCES AND THE FIRM OF SAHOS FROM SWITZERLAND. Delegates — psychologists from Great Britain, the GDR, Italy, the USSR, the United States, France, the PRC, and other countries, discussed new scientific concepts in psychiatry and their possible uses in clinical practice.

A "CENSUS OF WINDS" IN AZERBAIJAN HAS BEEN CARRIED OUT BY SPECIALISTS FROM THE RESEARCH INSTITUTE OF ENERGY. On the basis of many years of research, they have pinpointed suitable locations for the construction of wind power stations in general electrically for industry. The first of these stations should be in operation by the end of 1985.

AN EXHIBITION, "THE ARTISTS OF ODESSA IN DEFENCE OF PEACE", HAS OPENED IN THIS SOVIET BLACK SEA PORT. It includes more than one hundred paintings, drawings and sculptures. After the exhibition has closed, the items will go on display in clubs, palaces of culture, museums and amateur picture galleries. The artists have decided to donate all the proceeds from the exhibition to the Peace Fund.

CONTINUITY OF NATIONAL TRADITIONS IN THE FINE AND DECORATIVE ARTS IS ILLUSTRATED BY AN EXHIBITION OF WORKS BY YOUNG STUDENTS WHICH HAS OPENED IN THE CAPITAL OF MORDOVIA, SARANSK. The items on view — paintings, wood carvings, woven articles, book decorations, embroidery and knitting — have been entered by students from all the art schools of the city.

### FROM the SOVIET PRESS

#### WHAT MAKES PEOPLE CHANGE THEIR JOBS?

Today, this question is of political as well as of economic importance, since in many ways it depends on the employee's mood, his attitude towards his work and on the amounts of energy he devotes to it and to social activity, writes the SOVBITSKAYA ROSSIYA newspaper. As a rule, pay differentials are not the deciding factor. More than three hundred studies carried out at the place of employment have shown that greater importance is attached to social factors such as the availability of better housing, training prospects, for improving one's qualifications, as well as to better working conditions.

Sociologists and economists are paying more and more attention to the growing links between working conditions and productivity. In order to run on economy efficiency, these factors should be taken into account. To cause a permanent working climate of effort, attention needs to be paid to social problems as those involved in production. In other words, this can't be separated from the other.

#### BIG CITIES AND AIR POLLUTION

Over the past decade the number of cities whose population has topped the million mark has doubled in this country. It is expected that in the 80s they will be joined by several more rapidly developing industrial

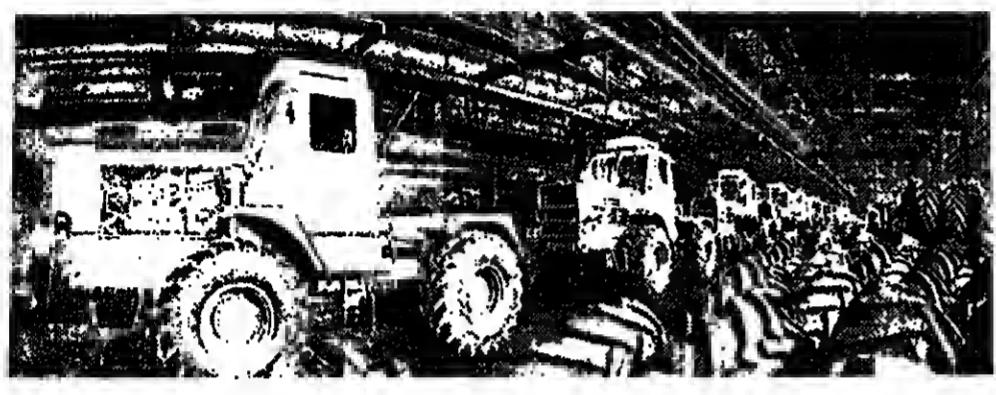
## Kharkov tractors command worldwide respect

For over two decades now the Sovzvezdje plant has been the world's largest producer of tractors. In 1981 plants in this country manufactured 47 different makes of tractor as well as tractor engines. Last year a total of 550,000 tractors were produced, excluding low-powered garden tractors.

The T-150K is popular with farmers in Sweden, Canada, Britain and Austria (it is sold in 30 countries worldwide), and this was the prestigious Gold Mercury award.

A new model, the 200 hp T-150KM tractor, is currently being put through its paces in the Kuban fields. With the same fuel consumption it is 12-13 per cent more efficient than its forerunner. Factor farmers will be quick to appreciate.

In the photo: the main conveyor belt of the Sergo Ordzhonikidze Kharkov tractor works.



#### How to make steel without pig iron

At the Tulachevsk plant amalgamation has been discovered that by gradually increasing the scrap content in converter, pig iron can be avoided in the charge.

This is an important step forward for the steel industry, says A. Zubarev, D. Sc. (Tech.), in charge of the group of specialists who made the discovery. Coke resources dwindling

#### MASS PRODUCTION OF BONE CHINA

The manufacture of bone china has started at the Jasius experimental factory of artistic ceramics, in the city of Kaunas, in Lithuania.

The technology for the production of such china, otherwise described as "soft", was known in ancient China. The GDR, and Czechoslovakia are famous for their soft chinaware which is somewhat lighter, more translucent, and particularly white and strong.

## THE MANGYSHLAK OIL PENINSULA

Oilmen of the Uzen fields, on the Caspian Mangyshlak Peninsula, have managed to increase production without drilling new boreholes. They were helped by geologists who found additional deposits on existing sites.

It seems that the inside of the earth resembles a bookshelf with oil-bearing strata at different levels. Having taken into account local geological characteristics, it was suggested that several oil wells, currently in operation, should be deepened. Now oil is taken from several horizons simultaneously; production has also been renewed at several old wells.

Looking for associated deposits has also given promising results at the nearby Chetybel fields. This means that the Mangyshlak peninsula amalgamation will be able to achieve three-fourths of its annual production growth from wells currently in operation.

centres. This is why special attention is paid in this country to the ecological development of the urban environment, writes the GUODOK newspaper. Legislative decrees, for instance, laws on the protection of water resources, forest and air, regulate the interaction between man and nature. Three years ago, Goskomgigromet, a state committee on hydrometeorology and environmental control, was set up. The protection of nature has become an integral element of plans for the country's social and economic development.

In Moscow the "Atmosphere" programme is underway and producing good results: travelling lorry to measure the purity of the air. They also check the composition of car exhausts. At Moscow factories have been equipped with pollution control devices. Moscow spends 400,000,000 rubles a year on environmental protection, the newspaper emphasizes.

#### HOW TO PROVIDE FOR AN ACTIVE OLD AGE

As in many other countries the Soviet population is becoming progressively older. Naturally, old people need help and assistance. And they want to participate in the life of society.

To reach the depths of the human soul it is necessary to fascinate the reader, listen to or spectator, to satisfy their demand for physical education and emotional relaxation, the newspaper concludes.

### DEVELOPMENT

#### OF ROBOTS IN ESTONIA

Robot manipulators, developed by scientists in Soviet Estonia, facilitate fully automated operations in metallurgy and machine-building.

One of the latest novelties is a laundry robot which after the pressing of a button places its load into the furnace taking out metal by a ladle and placing it directly into moulds.

The robot has been designed for the Ust-Kamenogorsk aluminum-magnesium combine. Its predecessors could only take out the metal by a ladle. The melt flowed in the process and scale appeared. Now the entire mass gets directly into the moulds not exposed to the air, thus retaining its high quality.

Implementation of the Soviet programme "robots and robotic systems" with Estonia participation does not lead to unemployment but frees thousands of workers from heavy manual labour.

For them courses are arranged at Ust-Kamenogorsk. After graduating from them the men work as operators or adjusters of precision apparatuses.

#### FISHING BOATS

#### FROM SOLOMDALA

Shipbuilders at the Solomala shipyard have built boats based on the old design used by local fishermen.

Fishing in the lakes of Kazakhstan requires a special sort of trawler: ideally it should be cheap to run, long-lasting, with good manoeuvrability, and capable of carrying large catches. One of the best presented old rowboats was taken by winter sledge road to Solomala, in Arkhangelsk, where Russia's first fleet was born in the seventeenth century and where the secrets of building wooden ships are handed down from generation to generation.

By combining the qualities of the rowboat, and those of the modern trawler, a unique type of new fishing boat was built at Solomala. Today powerful engines take the place of sail and oars but the old name let these boats — karbas — has been retained. This is the tenth type of ship that the yard has turned out. Besides the "darts" made for offshore fishing, launches and cargo ships, Iron Solomala, the modern descendants of the original Russian frigates, fit our seas and waterways.

There is no need to look for hidden treasure, it is there, waiting for you, in front of your eyes, turning up, say, in a far-off town, what happened in the town of Vysht Volochech, in the center of the European part of the Soviet Union.

During a general tidy-up in the city's central gardens (up-to-date) the workers dug up the old soil to the site so new trees could be planted. While shovelling the soil, two workers came across an enormous pile of full silver coins, weighing around two kilograms.

The coins, amounting to 10,000 rubles and 600 silver kopeks pieces, had been buried between 1840 and 1869 and had spent eighty years buried under ground.

This is the seventh hoard of money found in the space of thirty years in the Vysht Volochech area. The oldest hoard covered to light date was discovered in the village of Sukhovo where a farmer, digging his garden, discovered 1,356 million years ago — between 480 and 480-tally rings of their walls.

Palaeontologists believe that they now have convincing

## HOME NEWS

#### Lighthouses take a break

Lights have been switched off at lighthouses along the Arctic coast and on the off-shore islands. With the long polar day they have become unnecessary. Radio beacons, though, still operate non-stop.

Ships sailing in the northern seas make use of the beacons in bad weather. During the three summer months, lighthouse staff and specialists of the hydrographical service in the Northern Basin will carry out maintenance and repairs, and replenish their supplies of fuel and food for the long arctic winter that lies ahead.

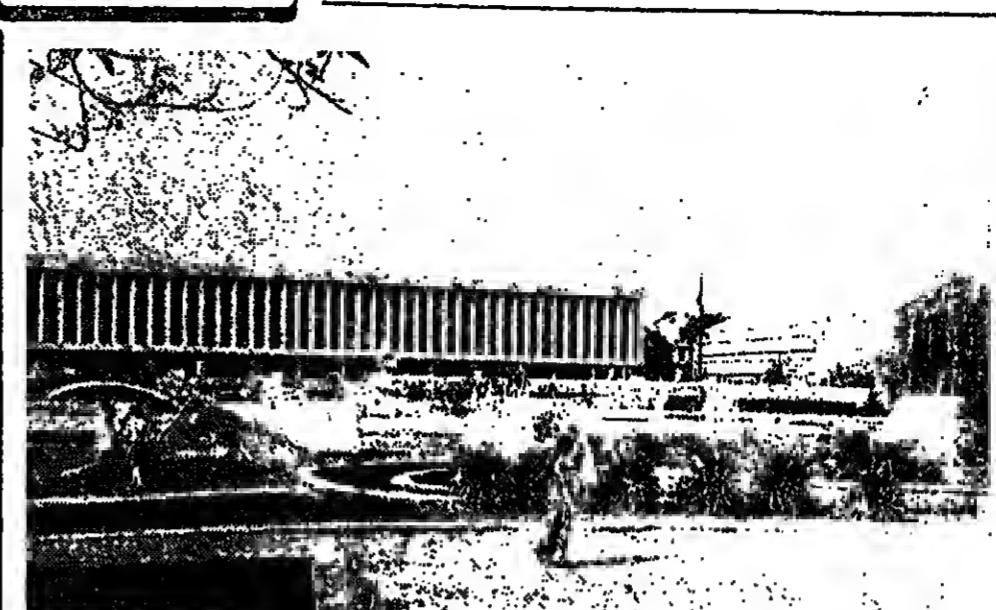
#### An archaeological mystery

After revisiting the ruins of a mysterious stone building which occupied four hectares to the south of Karezhalan, archaeologists came to the conclusion that this was an unfinished Nestorian monastery. They found there a stone slab with a sign of a fish which alongside the cross was the symbol of early Christianity.

Nestorianism was a Christian trend that originated in Byzantium. But at the Council of Ephesus in 411 Nestorianism was declared heresy and was banned in Byzantium. A great number of Nestorians fled and settled down in Iran, Central Asia and in the south of the present-day Kazakhstan which was named the Land of Seven Rivers since ancient times.

Only the foundation of the building and the first layers of masonry, made of lumps of cut stone 1.5 to 3.0 metres high each, have survived from that time. The walls are 1.5 metres

#### Places to visit



Karl Marx Square and the Central Library building.

## Ashkhabad, capital of Turkmenia

Ashkhabad, the southernmost capital of all the Soviet Union republics, is 101 years old. Submerged in greenery, it is snugly placed in a valley surrounded by the magnificent Kopet-Dag Mountains. It is thought that this city was founded in January 1881, when a Russian garrison was established in a small village in the centre of the oasis. By 1911, the population had grown 20 times, the town's convenient port being instrumental in promoting its growth. During Soviet power Ashkhabad continued to expand in size and became more beautiful. But one night in October 1948, disaster struck: a powerful earthquake destroyed the capital at Turkmenistan taking a toll of many lives.

Present-day Ashkhabad consists of numerous ensembles combining modern and national Turkmen traditional architectural styles. The city centre, consisting of the group of buildings belonging to the Academy of Sciences of the Turkmen Republic, is very attractive. There are more than 30 research institutes for the study of deserts and their natural resources, and for the study of solar energy in Ashkhabad. Over the past few years many tall 12-storeyed buildings have gone up in the city centre. All are seismically safe.

The creation of a single international system monitoring the state of the biosphere was an important result of UNEP activities. This idea, which was also put forward by Soviet scientists, is now finding realization in the Global Environmental Monitoring System (GEMS).

In fact something like a world ecological service is being set up to keep an eye on human impact on the environment. By constantly watching and analysing the processes on which the life of our planet depends, scientists hope to learn how to predict and avert possible deviations in the functioning of the environment's main elements.

A special role in global monitoring is assigned to biospheric preserves where constant comprehensive observations are carried out. In the Soviet Union there are seven such preserves in different climatic zones of the country. According to a special project, approved by UNEP and UNESCO, the first international congress on biospheric preserves will be held in 1983 in Minsk, capital of Belarus. Here scientists will be able to further develop and clarify the thinking behind such preserves.

SEA HOOVER

Ensuring the port area of the oil split by unloading tankers is one of the most topical environmental problems. Designers at the Black Sea Central Research and Design Bureau have suggested a gate flat device to remove oil film in cold and moderate climatic conditions.

Examined through powerful electron microscope, the walls of a coral polyp reveal daily lines of growth reminiscent of the annual rings of a tree, says Academician A. Yanush. One can distinguish between thin winter lines and those lines which emerged on the result of much more intense summer growth. Taken together a series of these lines form an annual ring.

The oil slick is fenced off with booms and it is within

over 300 days to get rid of it. Attached to the body of an auxiliary ship, they think that the slow-down in rotation is an ongoing process which has lasted for four hundred million years. The time it takes for the Earth to rotate round its axis, increases by approximately one second every fifty thousand years.

Most of the breaking action is caused by ebb and tides brought about by the gravitational pull of the Sun and Earth. Tidal waves occur in the Earth's crust, in some places reaching a height of dozens of metres.

SCIENCE AND TECHNOLOGY

evidence in favour of the theory that the Earth's spin is slowing down. They think that the slow-down in rotation is an ongoing process which has lasted for four hundred million years. The time it takes for the Earth to rotate round its axis, increases by approximately one second every fifty thousand years.

IN EARTH'S SPIN

It turns out that, at different stages in the history of our planet, coral polyps have acted as a stopwatch, regulating the passage of time. Having "read" this unusual "chronicle", paleontologists from the Siberian Branch of the USSR Academy of Sciences, in Novosibirsk, have come to the conclusion that hundreds of millions of years ago the Earth revolved round its axis much faster, and that once there used to be many more than 365 days a year.

SCIENCE AND TECHNOLOGY

## ENTERTAINMENT

### GUEST PERFORMANCES

As usual this coming summer Muscovites will have the opportunity of seeing companies from the various cities and republics of the country. 76 productions will be shown; there will be forty plays by Soviet playwrights, and 57 never seen before in Moscow.

The Leningrad Young Spectator's Theatre is now giving performances at the Salto.



### CONTACT BETWEEN MUSEUMS

#### MEANS CONTACT BETWEEN CULTURES

The Hermitage in Leningrad is one of the largest repositories of world art.

The Hermitage welcomes exchange in cultural treasures and we are proud of being one of the initiators of this important field," said Academician Boris Petrovsky. "The museum's director. At present we are in touch with over one hundred museums and research centres in Europe, Asia, Africa and America.

Over the past three years

alone, the Hermitage arranged twenty-three exhibitions abroad and participated in thirty-two.

"This Country's Youth" is the name of an exhibition which was recently opened at the Central Art Hall in Pyatidesyatishchi, Oktjabrskaya Square, Moscow. Oil, sculptured portraits, graphic arts and works of applied art by 1,800 young artists from all over the USSR provide a wide-ranging picture of contemporary life and recent history.



● Mikhail Onibys-Kuznetsov (Novosibirsk). "Interview in Tallinn".  
● Valery Puzhevich (Leningrad). "On the Banks of the Neva". ● Yelena Anusova (Moscow). "Men in the East".

### SHE WAS CALLED 'MOTHER MARIA'

The remarkable life of Russian poetess Yelizaveta Kuzmina-Karavayeva forms the basis of a new feature film, "Mother Maria" made by Moscow film directors. The story of her life and struggles has been reconstructed from archive material and from the recollections of her contemporaries by art director S. Kolesov and scriptwriter Ye. Mikulin.

As a 16-year-old schoolgirl who was just beginning to write poetry, Yelizaveta met Alexander Blok who had a great influence on the formation of her inner world. In a poem dedicated to Kuzmina-Karavayeva, Blok wrote: "You are so lively, so nice-looking". They started a correspondence which was interrupted by her

departure for Paris shortly before the 1917 Revolution. "The Russian poetess' eventful life, her work as a member of the French Resistance, her spiritual endurance and her love for people have attracted us enormously," says S. Kolesov. "There is a growing interest in her life and poetry, both in this country and in France. In the four years we spent working on the film, we were given help from Soviet people who fought as members of the Resistance Movement in France and from French friends who remember 'Mother Maria'. When we were filming the last December in Paris, where we took part in the celebrations to mark the 90th anniversary since our heroine's birth,

Lyudmila Kasatkina, the popular Soviet actress, plays the leading role in the film.

### PREMIERES

### 'A NIGHT IN MAY'



Drama and musical theatres in Moscow regularly turn to Russian classics and each production attracts great comment from theatre-goers. Not long ago a new production at the Stanislavsky and Nemirovich-Danchenko Musical Theatre of the opera "A Night in May", by the outstanding 19th-century Russian composer, Rimsky-Korsakov, gave rise to lively discussion.

This is the company's second attempt at the work. The first production took place in 1927, under the direction of Konstantin Stanislavsky, the co-founder of the theatre.

The libretto is based on Gogol's "A Night in May, or a Dimmed Girl". The composer was very fond of this story which he had known since childhood and had read it many times. He was fascinated by its poetic, idyllic atmosphere, by the writer's gentle humour and sharp satire, and the lumpy situations in which the characters find themselves. He felt he could transpose it effectively into music.

The new production is directed by I. Sharoyev, conductor V. Kozhukhar, and stage designer — V. Klementyev. They all strove to convey to the audience the moods and "colour" of Rimsky-Korsakov's music through which is felt all the beauty and charm of a May night in the Ukraine.

The cast is led by Zinenko (village mayor), Moshchensky (village), Zamkova (the sister-in-law) and Abakumovskaya (Hamlet).

Igor KAZENIN

## WHAT'S ON!

May 25-28

### THEATRES

Kremlin Palace of Congresses (Kremlin), 28 — Hertel, "Val Precentions" [ballet].

Bolshoi Theatre (Sverdlov Sq.-25-Prokofiev), "Ivan the Terrible" [ballet], 25—Verdi, "Un ballo in maschera" [opera], 27—Verdi, "Requiem", 28—Mozart, "Così fan tutte" [opera].

Stanislavsky and Nemirovich-Danchenko Musical Theatre (17 Pushkinskaya St.), 25—Bitez, "Carmen" [opera], 27—Pugni, Glier, Vasilko, "Esmeralda" [ballet], 28—Strauss, "Der Zigeunerbaron" [opera].

Opera Theatre (6 Pushkinskaya St.), 25—Mityutin, "Girls in a Flurry", 26 [mat. and aft]—Double-bill: Casanova, "Pinocchio's Adventures"; Kremnikov, "Kids From Our Backyard" [one-act ballet]; 26 [eve]—Ziv, "Mesmeurs Artistes", 27 [mat. and aft]—Glazkov, "Khota-bych", 27 [eve]—Kahan, "Marilla", 28—Strauss, "Die Fledermaus".

Operetta Theatre (6 Pushkinskaya St.), 25—Mityutin, "Girls in a Flurry", 26 [mat. and aft]—Double-bill: Casanova, "Pinocchio's Adventures"; Kremnikov, "Kids From Our Backyard" [one-act ballet]; 26 [eve]—Ziv, "Mesmeurs Artistes", 27 [mat. and aft]—Glazkov, "Khota-bych", 27 [eve]—Kahan, "Marilla", 28—Strauss, "Die Fledermaus".

### FILMS

Bulgarian and Soviet Bulgarian films dedicates to the Georgi Dimitrov's 100th anniversary.

Cinema: "Sofia" [SI Svetlyy Blvd.]; Metro Shchyolkovsky.

A Shoot of Silence [Media Studio, USSR].

About how we should care for Nature.

Cinema: "Udarnik" [SI Smolenskaya St.]; Metro Arbatskaya.

### EXHIBITIONS

Exhibition Hall, "Personal Representation", Office of the Georgian SSR, 16, Pashkevich St., 25—Georgian SSR, 16, Pashkevich St., 25—Georgian Arts Association, Daily, 25-28 [mat. and aft]—Kremnikov, "Kids From Our Backyard" [one-act ballet]; 26 [eve]—Ziv, "Mesmeurs Artistes", 27 [mat. and aft]—Glazkov, "Khota-bych", 27 [eve]—Kahan, "Marilla", 28—Strauss, "Die Fledermaus".

### EXHIBITIONS

Exhibition Hall, "Personal Representation", Office of the Georgian SSR, 16, Pashkevich St., 25—Georgian SSR, 16, Pashkevich St., 25—Georgian Arts Association, Daily, 25-28 [mat. and aft]—Kremnikov, "Kids From Our Backyard" [one-act ballet]; 26 [eve]—Ziv, "Mesmeurs Artistes", 27 [mat. and aft]—Glazkov, "Khota-bych", 27 [eve]—Kahan, "Marilla", 28—Strauss, "Die Fledermaus".

### EXHIBITIONS

Exhibition Hall, "Personal Representation", Office of the Georgian SSR, 16, Pashkevich St., 25—Georgian SSR, 16, Pashkevich St., 25—Georgian Arts Association, Daily, 25-28 [mat. and aft]—Kremnikov, "Kids From Our Backyard" [one-act ballet]; 26 [eve]—Ziv, "Mesmeurs Artistes", 27 [mat. and aft]—Glazkov, "Khota-bych", 27 [eve]—Kahan, "Marilla", 28—Strauss, "Die Fledermaus".

## BUSINESS

### Books from Austria on show in Moscow

"Books have always been among the most powerful instruments for spreading advanced ideas," said Boris Slukalin, Chairman of the USSR State Committee for Printing, Publishing and Book Distribution, speaking at the opening ceremony of an exhibition mounted by the Resident Varlag Publishers, Austria, at Moscow's Welta Club.

Founded in 1956 in Salzburg, Residenz Verlag is today one of the biggest publishers in Austria, and specialized to the publication of fiction and books on music, the arts and architecture. The firm concentrates on the development of national Austrian literature and on the publication of books by both well-established and young authors. Residenz Verlag has exhibited at all the Moscow International Book Fairs.

"Soviet readers have always been interested in Austrian literature," noted Boris Slukalin.

On show are 200 books published by Residenz Verlag in honour of its 25th anniversary.

Cocony LEONOV

### GAS FOR WESTERN EUROPE

The designing plans of a transcontinental gas pipeline from Urengoi to Western Europe have been completed by Soviet specialists. Its length from Siberia to the state frontier of the USSR alone exceeds 4,500 kilometres. The TASS correspondent was told by Stanislav Volkov, head of the project.

The annual capacity of the line is some 40,000 million cubic metres of natural gas, he added. This figure exceeds the overall energy potential of the hydro-power plants on the large Siberian rivers Yenisei and Angara. At the same time the 40,000 million cubic metres are far less than the known reserves of the Urengoi deposits alone.

The gigantic quantity of gas, Volkov went on to say, will pass through tubes of 1.5-metre diameter under pressure of 75 atmospheres. Over 40 compressor stations, fitted out with gas pumping units of 25 megawatt power, will make sure the high efficiency of the pipeline.

The design envisages enhanced reliability of the line which largely passes through areas with difficult natural conditions such as permafrost regions. A large proportion of the post of the gas pipeline is altered for environmental protection and maintenance of the ecological balance in the construction zone.

### Indian exports expand

Increased trade with the Soviet Union and other socialist states is playing now most important part in India's foreign trade relations, says a review of the main development tendencies for the Indian exports prepared by that country's Ministry of Trade.

Fast expansion of the volume has become a characteristic feature of India's trade relations with the Soviet Union and other socialist countries. While in 1979-80 fiscal year India delivered to socialist countries various goods costing about 8,850 million rupees, the figure was more than 14,000 million rupees in the fiscal 1980-81, says the review.

The Indian-Soviet trade is characterized by equality and mutual advantage and is developing on a long-term and planned basis. India holds now the first place in the Soviet Union's trade with the developing countries.

Under the bilateral trade protocol for 1982, the USSR is buying, besides traditional Indian goods, increased quantities of industrial products — steam-boilers, electric cables, cargo containers, textile goods. The Soviet Union will supply India, in its turn, with various machines and equipment.

### WEATHER

May 25-28

### SPORTS

GRASS HOCKEY  
Young Pioneers Stadium (31 Leninsky Prospekt), 25—SNIP (Moscow) vs. Politekhnicheskij Region, 6 p.m.

RACING  
Hipodrome (22 Devogradova St.), 26 and 28—Racing and trotting 6 p.m. (both days).

### WEATHER

May 25-28

In Moscow, city and region warmies weather is expected with short showers. Night temperatures 3° to 6°C and 10° to 18°C in the day time. Wind SE and S. A slight drop in temperature with a NW wind is expected on May 28.

The swimming season has started at the Black, Azov and Caspian sea resorts. Water temperatures are as follows: 15-16°C in the Azov Sea; 17°C in Odessa; 18-19°C in the Crimea; 18-19°C in the Caucasus; 18-19°C in the Black Sea and 16°C in Lake Baikal.

### COOPERATION DISCUSSED

The 9th regular session of the mixed commission on economic, scientific and technological cooperation between the USSR and the Belgian-Luxembourg economic union has taken place in Brussels and Luxembourg. The present state of and prospects for trade, economic, scientific and technological cooperation between the USSR and the union were discussed. Reports on possibilities for development in these fields in the light of the goals set forth in the State Plan for the economic and social development of the USSR for 1981-1985 and of forecasts for the development of the economy of the Belgian-Luxembourg economic union were also heard.

### THE SAKHALIN SHIPPING COMPANY FLEET IS CAPABLE OF DELIVERING TIMBER, WOOD CHIPS, COAL AND GENERAL CARGO TO ANY PORT IN FAR EAST

About 40 vessels manned by experienced crews ensure speedy delivery of your cargo.

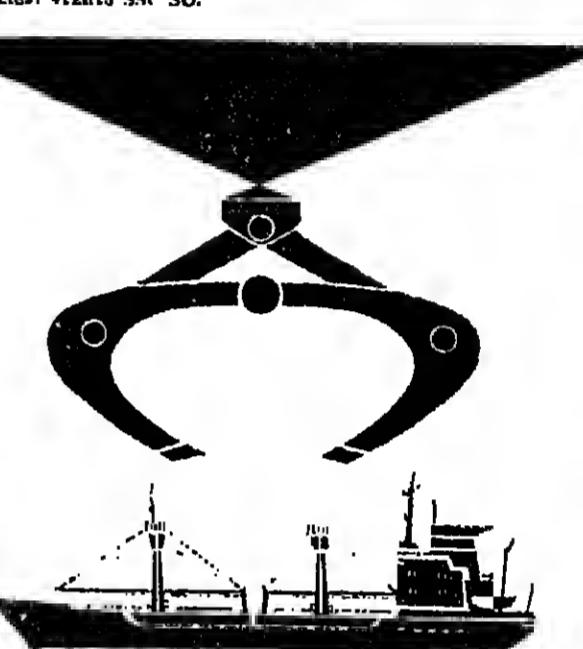
A regular service between the port of Vanino and the Japanese ports of Hakodate, Matsumae, Tsuruga has been operating successfully since 1975.

The company further promotes trade between both countries.

Should you require marine transport you can rely on

**SAKHALIN SHIPPING COMPANY:**  
16, Pobedy St., Khabarovsk 680420, USSR

**CABLE: NORMFLOT KHOI-ISK**  
Telex: 412813 SSC SU.



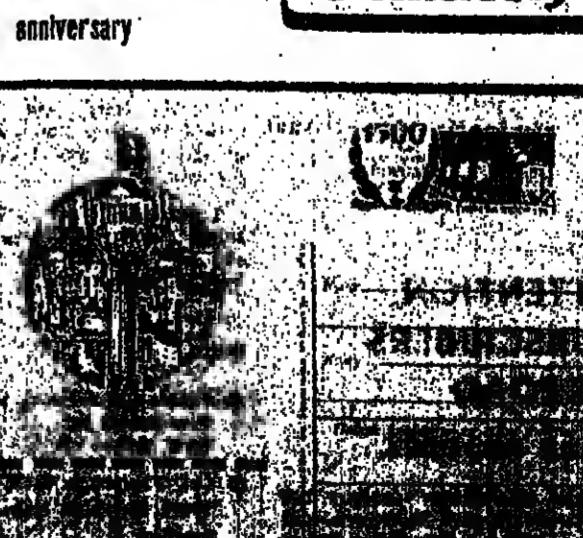
OUR GENERAL BROKER V/O "SOVRACHT"  
1/4, Zhdanov St., Moscow 103759, USSR  
CABLE: SOVRACHT MOSCOW  
Telex: 411168, 411170, 411171, 411172, 411217,  
41210, 411341, 411342, 411366, 411367, 411422, 411423.

### 'Artex' displays its goods in Minsk

Hungarian furniture and sports goods have been on display at an exhibition in Minsk, where "Artex", a Hungarian foreign trade enterprise, arranged a show of its goods for the first time in the Soviet Union's trade with the developing countries.

This year's exhibition features many new suites of furniture for sitting-rooms, kitchens and studios.

### Postcard to commemorate Kiev's anniversary



A four-cent stamp on the postcard has been issued to commemorate the 1,000th anniversary of Kiev, capital of the Ukraine. It depicts festive fireworks over Kiev, with an inset photograph of the city on the left side. In the foreground is the "Motherland" monument.

### Philately